

D-R-A-F-T
OEGuthe:ann
3 Sep 58

MEMORANDUM FOR: Deputy Director/Intelligence

SUBJECT: Possible Location for Satellite Launching Site in Communist China

1. You are, of course, aware that the OCB is interested in the possibility of a satellite launching in China. You also will recall that AmEmbassy, Tokyo, reported on 13 August that the Japanese Foreign Office had been advised that final arrangements had been made during the Khrushchev-Mao meeting for launching a satellite from Communist China this coming 1 October. A [redacted] report of 29 July states that a First Secretary of the Soviet Embassy, Mexico, said, with Soviet help, China is preparing to launch a satellite. The Geography Division of ORR, while studying possibilities for missile test ranges in Communist China, had noted that stated requirements for Soviet ICBM launching sites and geographic factors together reveal ^{the very probable} _{a probable} location at which ¹ the first so-called Chinese earth satellite might be launched.

2. Soviet cooperation in launching a "Chinese" earth satellite into orbit would be likely to include Soviet personnel, Soviet missiles, Soviet launching equipment, and Soviet supporting equipment. Such a launching would be particularly significant if the satellite were propelled into orbit in the same manner as were the three previous Soviet sputniks launched at Tyura Tam.

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4. Assuming that the announced event is to be a single performance, Soviet cooperation need not include the construction of a permanent launching base. Instead, a Soviet mobile train developed for the operational deployment of medium to long-range ballistic missiles might be used. It is estimated that a Soviet mobile missile train would be capable of transporting missiles or missile sections up to 70 to 90-foot long, possibly four or more large and heavy 60-foot liquid oxygen transporters per missile, a number of tank cars of liquid fuels, as many as 10 or 13 power generator cars weighing as much as 113 tons each, and an indeterminate number of cars for personnel and other support. In only one area of China proper could such a Soviet specialized train move into the country on Soviet wide-gauge tracks. Beyond the gauge-change points at Manchouli or Sui-fen ho, a mobile launching train would have to be adapted to standard gauge, or the equipment on the train would have to be transferred to Chinese rolling stock. Even if this were done, movement of the heavy launching train over low capacity stretches of Chinese track would be a difficult task. On the newly-completed Trans-Mongolian railroad, however, the gauge change at Chi-ning is well within the Chinese border.

5. Reasonably level terrain would be necessary for the development of rail spurs to service the satellite launching area and the mobile launching train and for installation of ground support facilities. The steppes of Inner Mongolia north of Peiping meet the terrain requirements -- they are level to rolling, short-grass covered plains.

6. The hazard to the population in the vicinity of the launch site is high within a radius of 25 miles and for an even greater distance

around the missile booster impact area -- about 230 to 460 miles down-range. Areas east of a line connecting Harbin, Peiping, and Ch'eng-tu generally appear to be too populated to permit missile launchings of this type. In order to conform to established Soviet instrumentation in the northeast, it is probable that the "Chinese" satellite would be launched in a northeasterly direction. The hazard of a missile booster impact rules out possible launch areas in northern Manchuria. The booster impact area of a launching from the Chi-ning -- P'ang-chiang area, on the other hand, would fall in sparsely populated areas.

7. Other launching criteria show similar locational indications. Low precipitation and wind speeds in the Chi-ning area are advantageous for launching operations. Wireline facilities along the Trans-Mongolian railroad are available for communications links between Peiping and the site, as well as for instrumentation support between the site, Ulan Ude and down-range instrumentation points to the northeast. Ad hoc radio communications arrangements, of course, might well supplement the land-line links. Security precautions would also be more easily enforced, while at the same time the location remains relatively accessible from Peiping -- a little more than 200 air-miles away.

8. The estimated operational requirements of a Soviet-sponsored Chinese earth satellite missile launching within the next few months, considered in association with the invariables of Chinese geography, suggest the strong possibility of a launching in the Mongolian steppe northwest of Peiping. Aside from the propaganda benefits to the Bloc of a successful satellite launching from this location, Western leaders might obtain

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firm evidence of Soviet capability to utilize mobile trains for the deployment of medium to long-range guided missile systems.

OTTO E. GUTHE
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Research and Reports

Enclosure:
Map

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